

MT 1877

STATE DOCUMENTS

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1977
Aug

MONTANA DEPARTMENT OF HEALTH
AND ENVIRONMENTAL SCIENCESMonthly Activities Report
of the Air Quality Bureau

August, 1977

1. Highlights

Continued to work on the MAPS Project. The Consultants from GCA were taken on a tour of the Butte-Anaconda area.

The Air Pollution Advisory Council met to consider the proposed ambient rule changes which are to be heard at the November Board meeting.

2. Ambient Air Quality Network

a. Standards Exceeded:

SO₂ violations - From Company stations near Anaconda Smelter:

State 1-hour	198
State 24-hour	29
Federal 24-hour	16
Federal 3-hour	15

	Microwave	Saddle Mtn.	East Station	Cogswell
State 1-hour	4	*	0	*
State 24-hour	0	*	0	*
Federal 24-hour	0	*	0	*
Federal 3-hour	0	*	0	*

*No data - analyzers being relocated

	Post Office	Mill Creek	C-Hill	Hwy Junction
1-hr. excur.	16	3	34	22
Highest 1 hr.	0.68	0.32	3.20	0.93
Highest 24-hr.	2.63	0.62	4.35	4.00
Highest 3-hr.	1.41	0.50	4.26	2.17

No. over Fed. 3-hr.	7	1	16	11
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Alpine West

CO violations	
Highest 1-hr.	0.20 ppm

NO ₂ violations	
Highest 1-hr.	0.05 ppm

O ₃ violations	
Highest 1-hr.	0.140 ppm

b. Air Stagnation Advisories - None in August

c. Laboratory Status:

Samples for Month	351
Total determinations for month	351

c. Developments:

Part-time Lab Aide hired for the summer terminated in August. A replacement has been hired to fill the position.

3. Permits and Tax Credits

a. Construction Permits Applied for:

Pipe Creek Lumber, Libby, tepee burner
Peter Kiewit Sons' Co., Lincoln County, hot mix plant
Harding's Ready Mix Concrete, Lake County, gravel crusher, hot mix plant
Baltrusch Construction Co., Powell County, hot mix plant
Central Montana Hospital, Lewistown, incinerator
Riverside Logging Company, Roundup, burning apparatus
Gus M. Albert, Roosevelt County, gravel crusher
Gus M. Albert, Roosevelt County, hot mix plant
Gus M. Albert, Roosevelt County, gravel crusher
Maronick Construction, Jefferson County, gravel crusher
Wickens Brothers, Treasure County, gravel crusher
Meyer Construction Company, Wibaux County, gravel crusher
Meyer Construction County, Richland County, gravel crusher
Spring Creek Coal Company, Decker, Crushers, conveyors, coal storage and train loading systems
Portable Pavers, Inc., Dawson County, hot mix plant
Texaco, Inc., Hill County, gas treating facility for natural gas
Francis Tindall Construction, Fergus County, gravel crusher
Super Save Market, Helena, incinerator
Pack and Company, Flathead County, hot mix plant

Construction Permits Approved:

Federal Bentonite, Valley County, bentonite drying plant
Spring Creek Forest Products, Judith Gap, tepee burner
Earth Builders, Inc., Carter County, gravel crusher
Earth Builders, Inc., Daniels County, hot mix plant
Earth Builders, Inc., Carter County, hot mix plant
J-B Company, Sheridan, equipment for milling and leaching of metals ore
Maronick Construction Company, Jefferson County, gravel crusher

c. Tax Credits: None

4. Variance Status

a. Current:

The SO₂ variance for the Anaconda Company was renewed at the January 21 Board meeting. It expires on June 30, 1977. A request for renewal has been received. The hearing is scheduled for the November Board meeting.

Anaconda's application for a variance from the visibility rule for the smelter has been scheduled for the November Board meeting.

ASARCO, Inc., variance request is still pending. It will probably be heard at the September 30 Board meeting.

4. Variance Status, Cont.

Anaconda Aluminum, Columbia Falls, F⁻ and particulate, expires June 30, 1978.

b. New - None

5. Enforcement Actions:

a. Citations

ASARCO, Inc., East Helena, 770823-HK-1 to 770823-HK-10 for 3 hour and 24 hour federal ambient air standards for sulfur dioxide.

Maronick Construction, Montana City, 770811-BR-1, crusher, violation of rule 16-2.14(1)-S1440, particulate matter, airborne.

McIntyre Construction, Bernice, 770816-BR-1, crusher, violation of rule 16-2.14(1)-S1440, particulate matter, airborne.

Zook Brothers Construction, Anaconda, 770824-BR-1, asphalt plant, violation of rule 16-2.14(1)-S1460, visible air contaminants, restrictions.

Meyer Construction, Billings, 770801-HK-1, batch plant in violation of rule 16-2.14(1)-S1460, visible air contaminants.

b. Notice of Violation

Rite-Way Asphalt, Butte, N770803-BR-1, batch plant in violation of rule 16-2.14(1)-S1460, visible air contaminants, restrictions.

Meyer Construction, Billings, N770829-HK-1, batch plant in violation of rule 16-2.14(1)-S1430, particulate matter, industrial processes.

c. Order for Corrective Action

Rite-Way Asphalt, Butte, 0770803-BR-1, batch plant in violation of rule 16-2.14(1)-S1460, visible air contaminants, restrictions.

- Order:
- a. Submit plan, 9/6/77
 - b. Issue purchase order, 11/1/77
 - c. Operate at reduced loads until 12/30/77
 - d. Submit testing schedule 3/1/78
 - e. Final compliance, 5/1/78

Meyer Construction, Billings, 0770829-HK-1, batch plant in violation of rule 16-2.14(1)-S1430, particulate matter, industrial processes

Order: Final compliance, 10/15/77

Order Bandor Oil of Denver, Colorado, to flare well H₂S gases at a well near Sidney.

d. Court Actions - None in August

6. Tepee Burner and Open Burning

Tepee Burner Inventory:	No. at start	39
	New starts	0
	Shutdowns	0
	No. at end	39

Permits Issued:

Cascade County	3	Sanders County	27
Flathead County	16	Yellowstone County	20
Lake County	3	Rest of State	233
Missoula County	1	Total	<u>303</u>

7. Source Tests Performed

a. Agency Source Tests:

Billings, Conoco, FCC was tested for particulates and particle size

Meyer Construction, asphalt batch plant was tested by YS&B (now EERC) at Hardin
Colstrip monitor performance tests are continuing

b. Non-agency Tests :

Hoerner-Waldorf, Missoula, 13 particulate tests on recovery boilers, lime
kilns, slakers, smelt tanks and hogged fuel boiler

8. Field Investigations

Continental Oil, Billings, odor complaint, H₂S from stripper suspected
Meyer Construction, McDonald Pass, portable hot mix plant, Citation issued
for excessive visible emissions

ASARCO, Inc., East Helena, inspection to determine status of construction
Brand S, Burkland Studs, Willow Creek, Park Lumber, tepee burners, Livingston,
inspection, in compliance

Gilman Excavating, inspection during source test, in compliance
Meyer Construction, McDonald Pass, observation, non-compliance
Harding's Ready-Mix, proposed crusher, Pablo, no action
Amish Colony, West Kootenai, open pit incinerator, conference, problem corrected
C & C Plywood, Kalispell, fuel cell for dryers 2 and 3, planning conference
Harding Ready-Mix, Pablo, inspection, action pending

Meyer Construction, Kalispell, inspection, in compliance

Rite-Way Asphalt, Butte, follow-up inspection, NOV issued

St. James Hospital, Butte, incinerator, short-term excessive emissions

Maronick Construction, Montana City, crusher, response to complaint,
Citation issued

McIntyre Construction, Bernice, crusher, response to verbal complaint,
Citation issued

Zook Brothers Construction, Anaconda, asphalt plant, response to complaint
by staff member, Citation issued.

9. Complaints

D & T Fiberglass, Billings, organic odor, under local control
Maronick Construction, Montana City, silica dust, under investigation
Big Timber Landfill, Big Timber, open burning, under investigation
Colorado Gulch Road, Helena, road dust, under investigation
Anaconda Company Smelter, Anaconda, smoke, under investigation
Willow Creek Lumber, Livingston, soot and sawdust, under investigation
Maronick Construction, Montana City, crusher, investigation and citation
C & C Plywood, Kalispell, fly ash, investigation
Harding Ready-Mix, Pablo, crusher working, investigation

10. Data Processing Services

- a. Ambient Data Summary - See attached
- b. Emission Inventory Status - No updates were received
- c. Prevention of Significant Deterioration

Review of Clean Air Act Amendments of 1977
- d. Modeling

A rough draft of Billings AQMA modeling analysis was written, incorporating comments by affected industries.

A modeling analysis was also initiated on Missoula AQMA through the use of a multiple box model.

11. Environmental Impact Statements

- a. Agency Impact Determinations:

A joint impact statement, written with Department of State Lands, will be considered as final. No comments were received by the AQB.

12. Status of Studies, Contracts and Reports

Columbia Falls Study - Trip was made to Kalispell to install a new minisonde receiver and test it.

Troy Study - installed two wind instrument towers.

Trip made to Anaconda to tour smelter and data acquisition system.

Billings SO₂ negotiations - Unlikely that Stipulations will be agreeable to refineries and EPA in SIP revision.

SE Coal - TSP input from workshop in Billings

Butte TSP - PEDCo analysis continues.

MAPS - Health study advisory committee meeting for Air Monitoring Committee.
Discussed site location and parameter specification for Missoula,

Billings, Butte and Anaconda.

Special particulate study of coal companies - Designed and had printed special forms to be filled out by coal companies concerning their results of hi-vol and dustfall data. The form is designed for data processing ease.

12. Status of Studies, cont.

Rockwell International has responded to our contract proposal to evaluate Anaconda's in-stack instruments. Their reply was received on July 18. Contract will be finalized in September.
Report to Board on Anaconda Aluminum's request to shut down foam scrubber in process.

13. Schools and Training

None in August

14. Public Hearings and Meetings

A. Public Hearings Held:

S.E. Montana Coal Area, Billings
Meetings with Billings Industries, Interested Public concerning proposed rule changes.

b. Meetings Attended

Billings AQMA, Helena
Department of State Lands, Helena, coal mining effect on air quality
Subdivision review for Billings, in Helena
Billings Transportation planners, in Billings
Montana Coal Council, Billings
Missoula Air Quality Control Office, PEDCo, in Helena
Met with GCA concerning MAPS, in Helena
Billings industries on ambient rule changes, Helena and Billings
Air Pollution Advisory Council, Helena, proposed rule changes
Emission Inventory Advisory Committee, MAPS, Helena
State Air Shed Meeting, Missoula
U. S. Forest Service, fire personnel, Missoula
State Division of Forestry, fire personnel, Missoula
State Employees Orientation Program, Helena
Sierra Institute Corporation, Helena, demonstrating air sampling equipment
EPA, proposed rule changes, Helena
Solid Waste State Plan, Missoula

c. Intra-staff Meetings

Proposed rule changes, Helena
MAPS project, Helena

15. Public Information Requests

Rules and Regulations	-	9
Clean Air Act	-	1
General Information	-	1

16. N.A.

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17. Other

Francis Mahon Deaconess Hospital in Glasgow has been requested twice to submit a construction permit application for their incinerator (9/30/76 and 5/24/77). No response has been received. If installation of the incinerator can be verified, a citation will be issued.

Met with plant ecologist for GNP and discussed possibility of doing more extensive studies to determine if present sites are the best for collection of fluoride emissions. The U. S. Park Service and U. S. Forest Service are possibly going to press charges for damages that have occurred to plant life from fluoride emissions.

MONTANA DEPARTMENT OF HEALTH AND ENVIRONMENTAL SCIENCES

MONTHLY SUMMARY OF AIR QUALITY DATA

July 1977

Pollutant: TSP		Units: ug/cu meter					Pollutant: TSP		Units: ug/cu meter				
AREA	Site Location	Current Month	Year-to-Date	Running Year	ARITHMETIC AVER.	% of Data	AREA	Site Location	Current Month	Year-to-Date	Running Year	ARITHMETIC AVER.	% of Data
AQCR							AQCR						
140	Morton Run. Big Horn Co.	97	148	162	47.6	7	142	Billings Constr. Butte Microwave	174	174	174	49.8	3
	Warren Ranch Big Horn Co.	103	103	103	23.7	7		Jefferson Co.	38	103	103	26.2	7
	Lockwood School Billings				***		212 East Pavillion Billings & Clt Co.	92	149	149	67.8	7	
	KOML Billings				***		Tierney Plaza Silver Bow Co.	40	64	64	35.7	7	
	City Hall Billings				***		Ekalaka	80	535	535	83.3	7	
	Grand Ave. Sch. Billings				***		Carter Co. Littlefield Hill	45	45	50	17.8	7	
	Laurel Jr. High Laurel				***		Miles City Clendive	41	102	102	27.0	7	
141	Holiday Inn Roof Great Falls	102	225	225	47.6	7	Dawson Co. Lame Deer						
	Fire Sta. #1 Great Falls	75	869	869	75.4	7	Rosebud Co. Mt. Peck	25	243	243	38.6	6	
	10th Ave. S. Great Falls	161	161	161	111.9	1	McCone Co. Broadus	43	91	91	32.8	7	
142	Hiway Jct. Anaconda	36	121	250	43.4	7	Powder River Co. RN Site	45	275	275	27.6	7	
	McKinley Res. Granite Co.	49	90	94	39.3	7	Colstrip McKee Site	40	93	93	36.2	7	
	Silver Bow Gen. Butte	39	210	210	69.9	7	High School Col. Falls	260	260	294	110.0	7	
	Creeley School Butte	65	226	226	86.3	7	Courthouse Missoula	198	295	342	95.3	7	
	Atkins Res. Walkerville	52	130	130	47.3	7	JB Field Missoula Co.	92	140	214	50.8	7	
	Richie Res. Slt. Butte Co.	27	46	46	23.7	7	Frenchtown Missoula Co.	84	255	255	47.2	7	

*** data unavailable at time of report

Pollutant: TSP		Units: ug/cu meter					Pollutant: Misc. Cont. Data		Units:				
AREA	Site Location	Current Month	Year-to-Date	Running Year	ARITHMETIC AVER.	% of Data	AREA	Site Location	Current Month	Year-to-Date	Running Year	ARITHMETIC AVER.	% of Data
AQCR							AQCR						
144	Kalispell-Sher. Flathead Co. Troy Lincoln Co.	98	226	226	90.2	7	140	Longon Nitroxide 27th & Montana Billings	—	—	—	—	
		56	122	122	44.8	5	144	Mallunction Jet. Missoula	17.20	17.5	17.5	4.903	6
							142	Alpine West Butte	1.00	3.70	3.70	0.551	2
							140	Hydrocarbons 27th & Montana Billings	—	—	—	—	
							143	DN Site Colstrip	—	—	—	—	
							143	Meth-Hydrocarbon DN Site	—	—	—	—	
							143	Colstrip North-HC	—	—	—	—	
							143	Colstrip Nitric Oxide	—	—	—	—	
							143	DN Site Colstrip	0.10	0.10	0.10	0.043	2
							140	Nitrogen Dioxide 27th & Montana Billings	—	—	—	—	
							143	DN Site Colstrip	0.13	0.13	0.13	0.030	6
							142	Alpine West Butte	0.03	0.08	0.08	0.015	2

*** Site no longer sampling

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Monthly Summary of Air Quality Data

July 1977

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Pollutants: Misc. Cont. Data				Units:		
ARIA		HIGH HEADING		ARITHMETIC AVG.		
ARIA	Site Location	Current Nominal	Year-to- Date	Running Year	Year-to- Date	Std. Dev. % of Avg.
143	Oxides of Nit.					
143	BN Site Colstrip Montana	0.12	0.12	0.12	0.061	2
140	17th & Montana				***	
143	BN Site Colstrip				***	
140	Sulfur Dioxide					
140	17th & Montana Billings Burke Farm Billings				***	
142	East Stack E. Helena	0.01	0.44	0.44	0.012	7
	Microwave					
	E. Helena	0.63	1.40	1.40	0.010	7
	Saddle Mtn.					
	E. Helena	0.06	0.78	0.78	0.012	7
	Cogswell Bldg.					
	Helena	0.06	0.40	0.40	0.006	7
	C-Hill					
	Anaconda	0.0	3.51	3.51	0.019	7
	Hi-way Jct.					
	Anaconda	0.0	1.46	1.33	0.023	7
	Mill Creek					
	Anaconda	0.0	0.88	1.36	0.018	7
	Post Office					
	Anaconda	0.0	1.05	1.05	0.010	7
142	BN Site Colstrip	0.0	0.0	0.0	0.0	7

*** data unavailable at time of report

Pollutant: Mid Indicators				Units:			
Area		High Reading:		Arithmetical Aver.			
POC#	Site Location	Current	Year-to-	Summed	Year-to-	No. of	Comments
		Month	Date	Year	Date	Years of Data	
142	Flinnside P.M.H.M.S. Multi-level Powell Co. Jahman's Powell co. N. Ac. Hwy. Powell Co. Ramsay West Sil. Bow Co. ESE Stauffer Sil. Bow Co. 1st St. S. Calgary	-	July 30, 1984	-	-	-	
143							
144	Bethelton Mt. Box Flathead Co. Anacanda South Flathead Co. Glac. Nat. Pk. 1 Glac. Nat. Pk. Glac. Park #2 Glac. Nat. Pk.	0.890 2.600 0.640 0.580	1.610 7.550 0.640 0.580	1.710 7.740 0.640 0.580	0.747 3.443 0.338 0.427	6 6 6 6	

Pollutant: Misc. Indicators

AREA	HIGH READING			ARITHMETIC AVER.		
	Current Month	Year-to-Date	Running Year	Year-to-Date	% of Total	Comments
AQCA	Site Location					
142	Fluoride Plates	.99g./sq.	1.0g./D. day			
	Dinant Canyon					
	Beveridge Co.					
	N. At Hwy					
	Powell Co.					
	Mt. on Rd 1					
	Powell Co.					
	Ramsey West					
	Sil. Bow Co.					
	ESP Stauffer					
	Sil. Bow Co.					
	BN Site					
143	Colstrip					
	Toddville #5					
	Flathead Co.					
	Anacoma South					
	Flathead Co.					
144	Clac. Park #1	3.560	8.530	8.820	4.385	6
	Clac. Nat. Pk.					
	Clac. Part #2					
	Clac. Nat. Pk.					
	Clac. Park #3					
	Clac. Nat. Pk.	0.170	0.170	0.180	0.146	7

* no data from this site for this month

*** - data unavailable at time of report

** - site no longer sampling

